APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,366	05/30/2001	Sudheer Sirivara	10559-477001/ P11156	7426

20985	7590	12/13/2004	

FISH & RICHARDSON, PC
12390 EL CAMINO REAL
SAN DIEGO, CA 92130-2081

EXAMINER
KADING, JOSHUA A

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)	
Office Action Summary	09/870,366	SIRIVARA ET AL.	
	Examiner	Art Unit	
	Joshua Kading	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☒ Claim(s) *1,4,14 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 4 and 17 are objected to under 37 CFR 1.75(c), as being of improper

dependent form for failing to further limit the subject matter of a previous claim.

5   Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s)

in proper dependent form, or rewrite the claim(s) in independent form. Claims 4 and 17

both disclose "determining a quality of service of said channel comprises comparing

said reference data and said altered data." This is identical to the last limitation of each

parent claim (claims 1 and 14). Therefore, claims 4 and 17 do not further limit the

10   subject matter of a previous claim and are objected to.

Claims 1, 4, 14, and 17 are objected to because of the following informalities:

Line 3 of claim 1 and line 4 of claim 14 have a comma ending the limitation on

the respective line, i.e. "stream,". For consistency, it is suggested that the comma of line

15   3 of claim 1 and line 4 of claim 14 be changed to a semicolon, i.e. --stream;--.

Lines 2-3 of claim 4 and lines 3-4 of claim 17 state "said first reference data."

There is no antecedent basis for "said first reference data." Therefore, claim 4, lines 2-3

and claim 17, lines 3-4 should be changed to --said reference data--. Appropriate

correction is required.

20

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claims 7 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being

5   indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 7, lines 7-8 and claim 20, lines 8-9 recite the limitation "a computer

network between said encoder and said decoder." This appears to fall under the

category of an apparatus but is contained within a method claim. Therefore, it is unclear

10   if applicant is claiming a method or an apparatus with regard to this limitation. It should

be noted that the other limitations of claims 7 and 20, "an encoder for creating..." and "a

decoder for recovering...", are acceptable because they disclose steps of the method,

i.e. "creating" and "recovering"; however, the last limitation of claims 7 and 20 does not

contain a method step and therefore creates ambiguity.

15

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
20   > (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
25   > only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

Claims 1, 2, 4, 5, 6, 9, 14, 15, 17, 18, and 19 are rejected under 35 U.S.C. 102(e)

as being anticipated by Schuster et al. (U.S. Patent 6,363,053 B1).

Regarding claim 1, Schuster ('053) discloses "a method comprising: obtaining

5   reference data that characterizes a media stream (figure 5, element 232 where the SLA

is the reference data characterizing a media stream as read in col. 10, lines 23-33);

obtaining altered data that characterizes said media stream after said media stream has

traversed a channel that includes a network (figure 4, elements 202 and 204); and

determining a quality of service of said channel on the basis a comparison said

10   reference data and altered data (figure 4, elements 206 and 208)."

Claim 14 is a computer program embedded on a computer readable medium that

executes a method similar to that of claim 1. Schuster ('053) further discloses a

computer program embedded on a computer readable medium for executing a method

15   similar to that of claim 1 (col. 9, lines 55-58). Therefore, the executable method of claim

14 is rejected for the same reasons as in claim 1.

Regarding claims 2 and 15, Schuster ('053) discloses the method of claim 1 and

the computer program of claim 14. Schuster ('053) further discloses "wherein said

20   reference data characterizes a feature of said media stream (col. 10, lines 23-33); and

said altered data characterizes a feature of said media stream after said media stream

has traversed said channel (col. 10, lines 1-4)."

Since claims 4 and 17 have been objected to as failing to further limit a parent

claim, the content of claims 4 and 17 is rejected on the basis that the same subject

matter was rejected previously.

5   Regarding claims 4 and 17, Schuster ('053) discloses the method of claim 2 and

the computer program of claim 15. Schuster ('053) further discloses "determining a

quality of service of said channel comprises comparing said reference data and said

altered data (figure 4, elements 206 and 208)."

10   Regarding claims 5 and 18, Schuster ('053) discloses the method of claim 1 and

the computer program of claim 14. Schuster ('053) further discloses "obtaining network

statistics associated with transmission said channel (col. 1, lines 34-38 and 47-52 where

the SLA contains the network statistics such as delay, jitter, etc.); correlating said ╷

network statistics with said altered data (col. 10, lines 23-27)."

15

Regarding claims 6 and 19, Schuster ('053) discloses the method of claim 5 and

the computer program of claim 18. Schuster ('053) further discloses "selecting said

network statistics from the group consisting of jitter packet loss, and packet latency (col.

1, lines 34-38 and 47-52)."

20

Regarding claim 9, Schuster ('053) discloses "a system comprising: a first feature

extractor for generating reference data characterizing a media stream (figure 3,

elements 162, 166, and 168 where the reference data 162 is generated through

communication of elements 166 and 168); second feature extractor generating altered

data characterizing said media stream after said media stream has traversed a channel

that includes a network (col. 9, lines 62-col. 10, line 1 where the destination device

5   inherently extracts the data from the network for processing); an analyzer for comparing

said reference data and said altered data to generate a transmission metric indicative a

quality of service (col. 10, lines 1-4; figure 7, element 342)."

Claim Rejections - 35 USC § 103

10   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
15   invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

20   over Schuster et al. ('053) in view of Morton, Jr. (U.S. Patent 5,912,701).

Regarding claims 3, 13, and 16, Schuster ('053) discloses the method of claim 1,

the system of claim 9, and the computer program of claim 14. However, Schuster ('053)

lacks what Morton discloses, "wherein obtaining at least one of said reference and said

altered data comprises applying a Sarnoff JND algorithm or an ANSI T1.801.03

25   algorithm (col. 5, lines 38-42)." It would have been obvious to one with ordinary skill in

the art at the time of invention to include the ANSI T1.801.03 algorithm for the purpose

of obtaining the reference data or altered data. The motivation for obtaining the

reference data is to use it to derive a comparison of the current status of the network

(Schuster ('053), figure 4, elements 206 and 208).

5   Claims 7, 8, 20, and 21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Schuster et al. ('053) in view of Schuster et al. (U.S. Patent

6,360,271 B1).

           It is assumed that claims 7 and 20 are meant to be a method claim and a

10   computer program claim respectively. Therefore, the last limitation of each claim will be

treated as further limiting various components of the claim, i.e. --wherein there is a

computer network between said encoder and said decoder.--

           Regarding claims 7 and 20, Schuster ('053) discloses the method of claim 1 and

the computer program of claim 14. However, Schuster ('053) lacks what Schuster ('271)

15   discloses, "an encoder for creating an encoded representation of said media stream

(figure 2, element 24); a decoder for recovering said media stream from said encoded

representation (figure 2, element 34); and wherein there is a computer network between

said encoder and said decoder (figure 2, element 18)." It would have been obvious to

one with ordinary skill in the art at the time of invention to include the encoder, decoder,

20   and computer network for the purpose of compressing the data before it is transmitted

across the network (Schuster ('271), col. 8, lines 66-67). The motivation for

compressing data before it is transmitted is to make optimal use of the network

bandwidth by allowing more compressed data to be transmitted than uncompressed

data.

Regarding claims 8 and 21, Schuster ('053) discloses the method of claim 1 and

5   the computer program of claim 14. Schuster ('053) further discloses "passing said

decoded media stream through a feature extractor to extract said reference data (figure

7, element 332 which extracts data (e.g. decoded) from the network as read in col. 12,

lines 44-47)." However, Schuster ('053) lacks what Schuster ('271) discloses, "passing

said media stream through an encoder to generate an encoded signal (figure 2, element

10   24; col. 2, lines 64-col. 3, lines 1-4); passing said encoded signal through a decoder to

generate a decoded media stream (figure 2, element 34; col. 3, lines 9-12)." It would

have been obvious to one with ordinary skill in the art at the time of invention to include

the encoding and decoding for the purpose of compressing the data before it is

transmitted across the network (Schuster ('271), col. 8, lines 66-67). The motivation for

15   compressing data before it is transmitted is to make optimal use of the network

bandwidth by allowing more compressed data to be transmitted than uncompressed

data.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

20   Schuster et al. ('053) in view of Bartz et al. (U.S. Patent 6,701,342 B1).

Regarding claim 10, Schuster ('053) discloses the system of claim 9. However, Schuster ('053) lacks what Bartz discloses, "comprising a correlator in communication with said analyzer, said correlator being configured correlate network statistics associated with said channel with said transmission metric (col. 13, lines 37-63 where

5   the QoS data and the SLA data corresponding to network statistics are correlated for a given instant or period of time)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the correlating for the purpose of determining end-to-end performance and availability of resources (Bartz, col. 3, lines 14-19). The motivation for determining end-to-end performance and availability of resources is to

10   ensure that there are enough resources in the network to reliably transmit and receive data.

Regarding claim 11, Schuster ('053) and Bartz disclose the system of claim 10. However, Bartz lacks what Schuster ('053) further discloses, "a network monitor in

15   communication with said correlator, said network monitor being configured to collect said network statistics (figure 7, element 340)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the network monitor for the same reasons and motivation as in claim 10.

20   Regarding claim 12, Schuster ('053) and Bartz disclose the system of claim 10. Although Schuster ('053) lacks the correlator of Bartz, both Schuster ('053) and Bartz further disclose "statistics selected from the group consisting of jitter packet loss, and

packet latency (Schuster ('053), col. 1, lines 34-38 and 47-52; Bartz, col. 5, lines 50-

57)." It would have been obvious to one with ordinary skill in the art at the time of

invention to include selecting of network statistics for the same reasons and motivation

as in claim 10.

5

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joshua Kading whose telephone number is (571) 272-

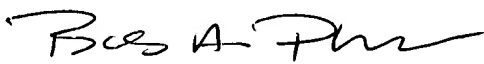3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

10   supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

15   published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

20

Joshua Kading
Examiner
Art Unit 2661

December 8, 2004

BOB PHUNKULH
PRIMARY EXAMINER